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Slide 4-1: Module 4 Clean-up and Check Your Work

- This is the module title slide.
- Announce the module title move quickly to the next slide.

Module 4
Clean-up and Check Your Work

9/30/2000

4-1

Slide 4-2: Video Segment: Clean-up and Check Your Work

- Play the third segment of the video. When the segment is complete, turn off the VCR.
- **Optional discussion questions.** Ask participants to name the three most important clean up practices they saw. Ask participants what it would take to begin doing these practices on their jobs. Try to keep discussion limited to no more than about 5 minutes.
- Begin presenting the material on the next slide.

Video Segment: Clean Up and Check Your Work

- **Think about the following points as you view the video**
  - What are the most important clean up practices you see?
  - What would it take for you to begin doing these practices in your work?

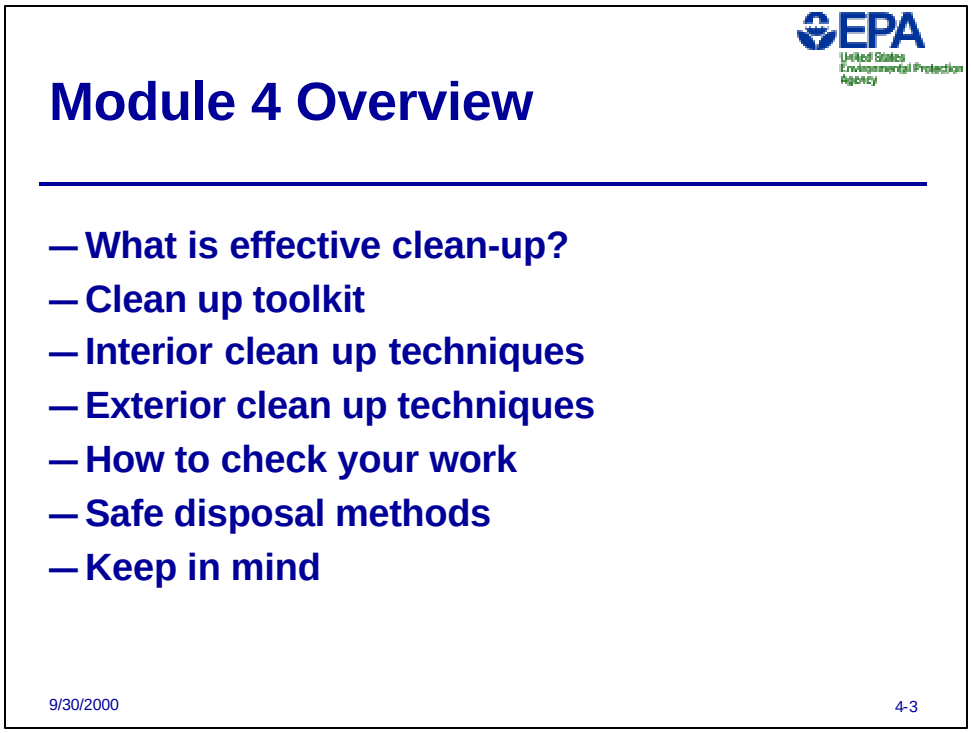
9/30/2000 4-2

Slide 4-3 : Module 4 Overview

- In this section participants will learn:
    - What an effective clean-up includes
    - What tools to always keep in your truck and at the work site
    - Effective techniques to clean after both interior and exterior jobs
    - Safe disposal methods
    - How to check your work

- Effective clean-up includes using specific techniques and following the proper order when cleaning. This module focuses on how to clean to reach visual clearance. Visual clearance means that an area has been cleaned to the point that no dust, debris or paint chips can be seen with the naked eye, and it is the goal of every clean-up.

- **Remember**, because lead dust can be invisible visual clearance does not guarantee that you will pass a dust sample test.



What you will learn in this module

In this module, we will cover all the topics listed on the slide above.

- The goal of cleanup is to leave the work area as clean or cleaner than when you arrived so that, as a result of your work, lead dust is not left behind to poison the residents of the home.
    - At the end of this module, you will know how to check your work to ensure the work area is clean enough to pass a clearance examination, if it is required.
- By using the techniques described in the following pages of this module you will be able to clean a work area quickly and efficiently. Remember, approaching a clean-up is similar to approaching a job. Proper preparation and planning will help make your cleaning efforts more effective and faster.
- Always schedule time at the end of each day to clean thoroughly.

Slide 4-4: What is Effective Clean-up?

- Discuss the similarities of clean-up and approaching a job. Explain that, just as you approach a job with planning, set-up and containment, you must approach cleaning by first having effective containment, then carefully following specific procedures to best clean the work area. The techniques outlined in this section should make your clean-up faster, more efficient, and more effective.

- **Remember:**

    - Always achieve visual clearance.
    - Proper disposal and checking your work are essential to the process of cleaning.
    - The most effective cleaning will follow this sequence:

        1. **Pick up** all visible paint chips and debris.
        2. **Clean and dispose** of protective sheeting.
        3. Slowly **HEPA vacuum** the work area, working from high to low.
        4. Thoroughly **wet clean**, working from high to low.
        5. **If necessary repeat** HEPA vacuuming or wet cleaning.
        6. **Visually inspect** your work.
        7. **Bag** all waste in 4-6 mil poly-bags, "gooseneck" **seal** and **dispose** according to Federal, state and local regulations.

- **Demonstrate how to "gooseneck seal" a poly-bag and note that this will again be covered in the disposal section.**

- Discuss why this clean up sequence should work well.

    - **Picking up all visible debris and paint chips** prepares a work area for the first HEPA vacuum.

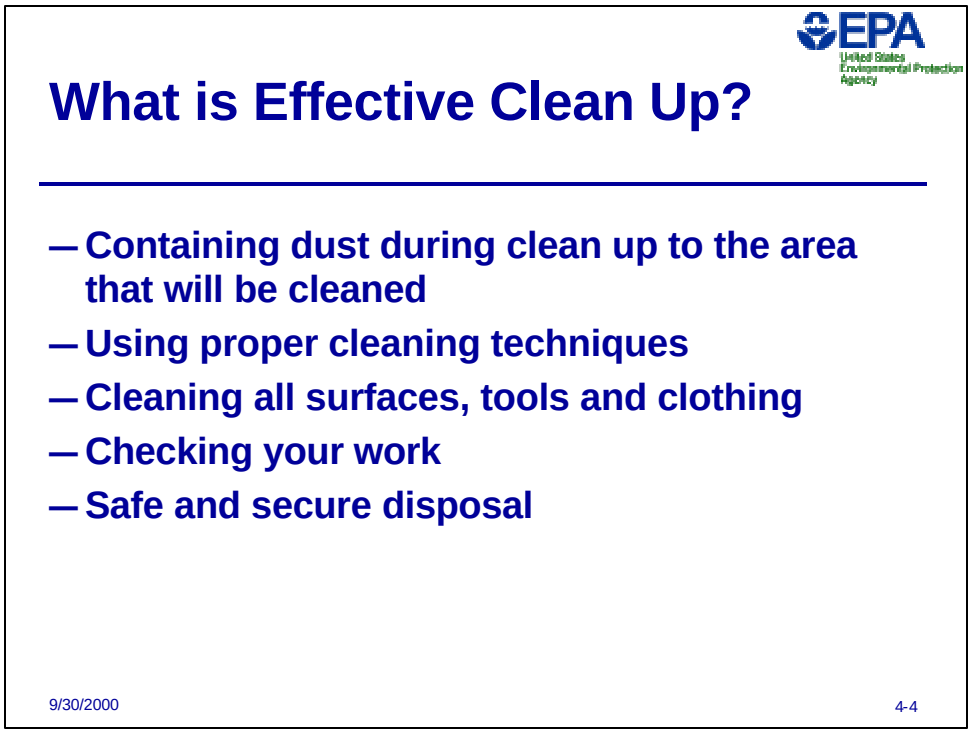
    - **Clean and dispose of protective sheeting.** This step should come before HEPA vacuuming in order to collect any dust that may escape from the protective sheeting.

    - **HEPA vacuum the area from high to low.** This first HEPA vacuum will collect dust and debris not visible to the naked eye.

    - **Wet cleaning** the area will further dislodge any lead contaminated dust or debris not collected by the first HEPA vacuum. Wet cleaning also gets dust and debris that is "stuck" to surfaces.

    - **If necessary, a final pass with the HEPA vacuum or wet clean** will capture any remaining dust or debris left after the wet cleaning.

    - The last step should be to **check your work** and make sure that visual clearance is achieved and all waste is bagged, sealed and disposed of in accordance with federal, state and local laws. Performing a dust wipe test is recommended for all work.



Containment

- Effective cleaning begins with proper preparation and containment. Clean-up will be much easier and efficient if proper containment has kept all dust and debris confined to the work area. Also, containing dust to the area that is being cleaned is important.

Proper cleaning techniques

- You should be careful not to spread dust and contaminate other areas while cleaning. Using the techniques outlined in this module and following the proper sequence will help ensure that you do not contaminate other areas while cleaning.

Cleaning all surfaces

- "All surfaces" includes vertical surfaces such as walls and windows and horizontal surfaces such as floors, door tops, window troughs, and window sills. Cleaning should proceed from high to low, i.e., from top of wall to window to floor.

Checking your work

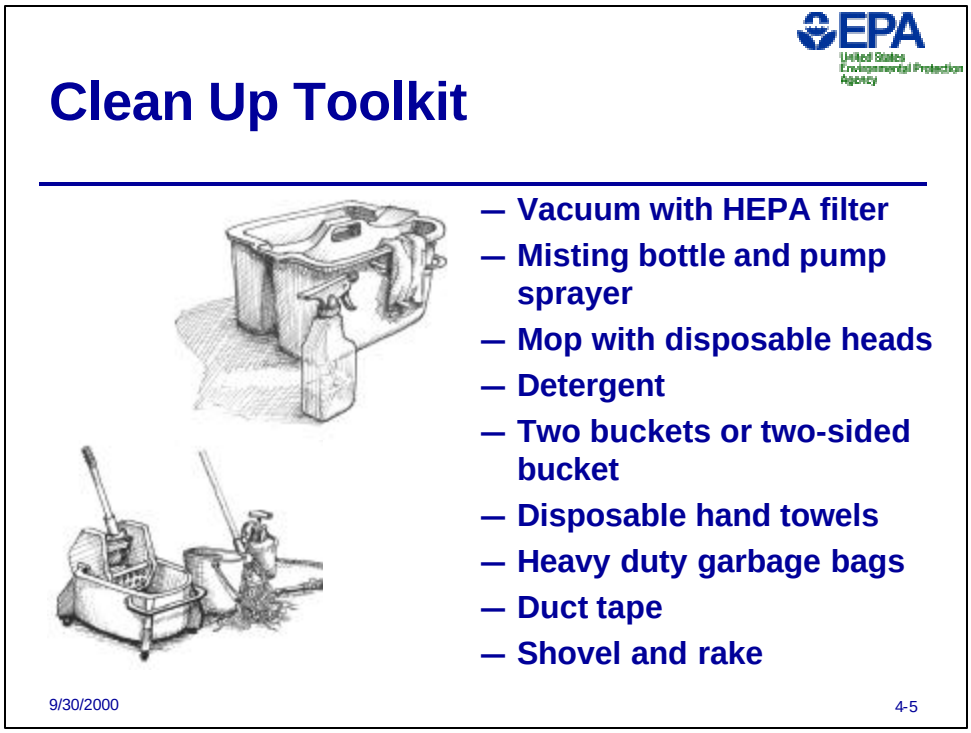
- Always conduct a visual inspection after any job. Look for any visible paint chips, dust or debris.

Safe and secure disposal

- Bag and "gooseneck seal" all waste in 4-6 mil poly-bags. Safely dispose of all waste in accordance with state and federal regulations.

Slide 4-5 : Recommended Cleaning Tools

- Here is a list of cleaning tools that you should always keep in your truck.
    - Be sure to change mop heads when necessary. You do not want to be mopping and cleaning with a dirty, used mop head as this could spread dust into other areas.
    - You need either a two-sided bucket or two single buckets to keep your wash and rinse water separate.
    - Heavy duty garbage bags such as 4-6 mil poly bags.
- Ask participants if anyone uses tools that are not included in the list? If so, what are they and what do they use them for?



Clean Up Toolkit

- The tools listed on the slide above are for cleaning interior and exterior jobs. Some tools, such as the pump sprayer, shovel, and rake are used primarily for exterior clean up. Other tools, such as the buckets and mops are used primarily for interior clean up.
- The following pages discuss clean up for both interior and exterior situations.

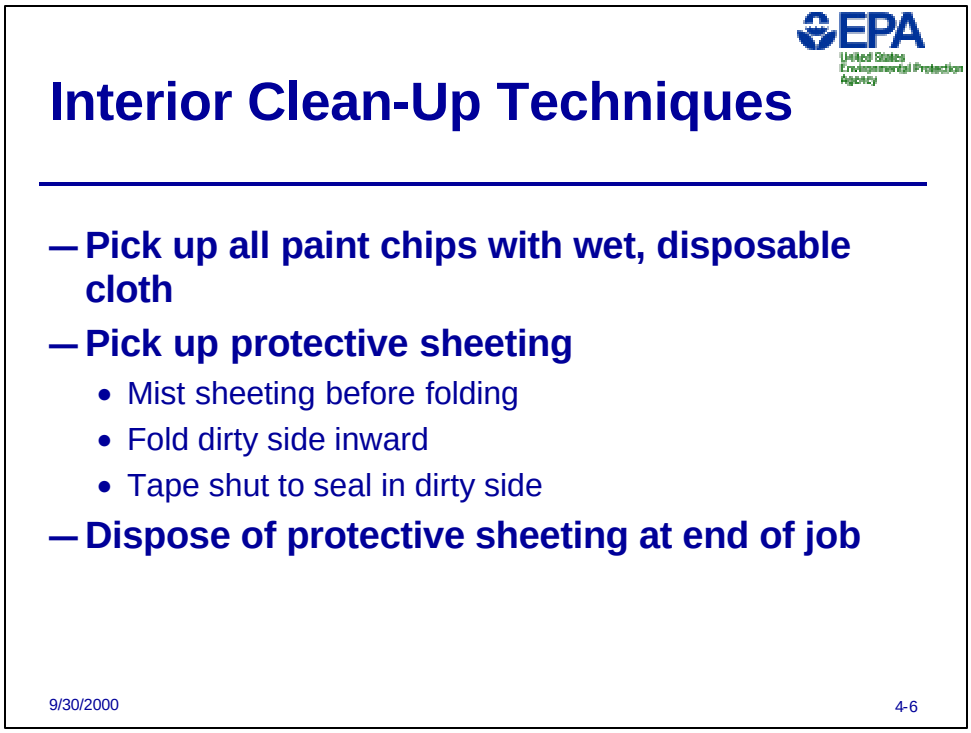
Slide 4-6: Interior Clean-up Techniques

- **Ask:** Why should you pick up paint chips and other debris before picking up the protective sheeting? Why should you mist down the protective sheeting before picking it up?

  [Answer to both questions: to prevent accidental spreading of lead-contaminated paint chips and dust off of the protective sheeting]

- After the first visual inspection of the work area, cleaning, folding and disposing of the protective sheeting is the next step. Clean your protective sheeting with a HEPA vacuum. Once cleaned, fold and seal the sheeting and dispose with the rest of your waste. When you pick up and fold the protective sheeting be careful not to spread any dust that may remain on the sheeting.

- This process is followed by the HEPA vacuuming and wet cleaning (discussed on next slide) in order to get any dust that escaped the protective sheeting.



Pick up

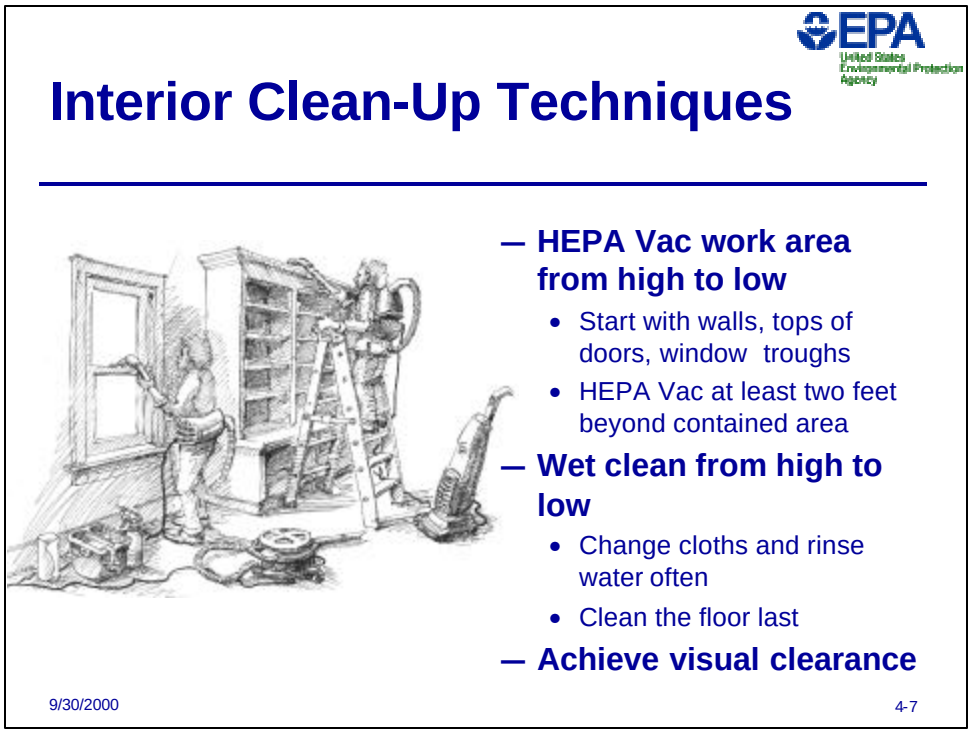
- Always begin a clean-up by picking up all paint chips and any visible debris with a wet disposable cloth.

Protective sheeting

- Protective sheeting may be used again within the same work area if it has not already been folded (see pp. 47, Lead Paint Safety Field Guide). When the job is complete, clean protective sheeting using a HEPA vacuum. Protective sheeting should then be folded and taped shut. Always fold dirty side inwards, seal and place in 4-6 mil poly-bag. "Gooseneck-seal" the poly-bag and dispose with the rest of your waste at the end of the job.

Slide 4-7: Interior Clean-up Techniques

- Emphasize that workers should always clean at least two feet beyond the work area.
- Also, discuss **why** clean-up should always proceed from high to low.
    - [Answer: Cleaning from high to low is more efficient and effective because any dust or debris dislodged will fall down to the floor. Just as one would clean steps working from the top down, cleaning a work area should work from high to low to "push" all dust not collected down to the floor, which should be cleaned last.]
- These cleaning techniques and this sequence ensure that visual clearance will be achieved. While there is no guarantee that you will pass a dust sample analysis, this process is highly effective in cleaning a work area and if followed, significantly decreases the risk of not passing a dust sample analysis. This will be discussed in greater detail later in the module.



HEPA vacuum the <u>contained</u> work area from high to low

- Start with the walls, tops of doors, and window troughs (high) and work your way down to the floor (low).
- Clean walls with a HEPA vacuum or by lightly wiping with a damp disposable cloth.
- **Be thorough-don't rush.**

When cleaning wet, you can either mist the surface with cleaning solution or use a wet disposable cloth

- Work from high surfaces to low. If a surface is very dirty use a moist paper towel before beginning to scrub with a wet cloth.
- Replace cloths and change rinse water often.

Clean the floor last

- Mist floor and clean with a wet mop using cleaning solution and the two-sided bucket.
- Clean at least two feet beyond contained area.
- Then, repeat the process using a new mop head and clean water.
- Remember, always keep one side of the bucket for cleaning solution and the other side for rinsing and wringing out the cloth or mop-head. Change the rinsing water often.

It may be necessary to repeat the HEPA Vacuum and Wet Clean. <u>Always</u> clean to visual clearance.

Slide 4-8: Interior Checking Your Work

- Always conduct a visual inspection after your clean up is completed. If you find any dust or debris, make another pass with the HEPA vacuum and, if necessary, wet clean again. You should continue these steps until visual clearance is achieved.

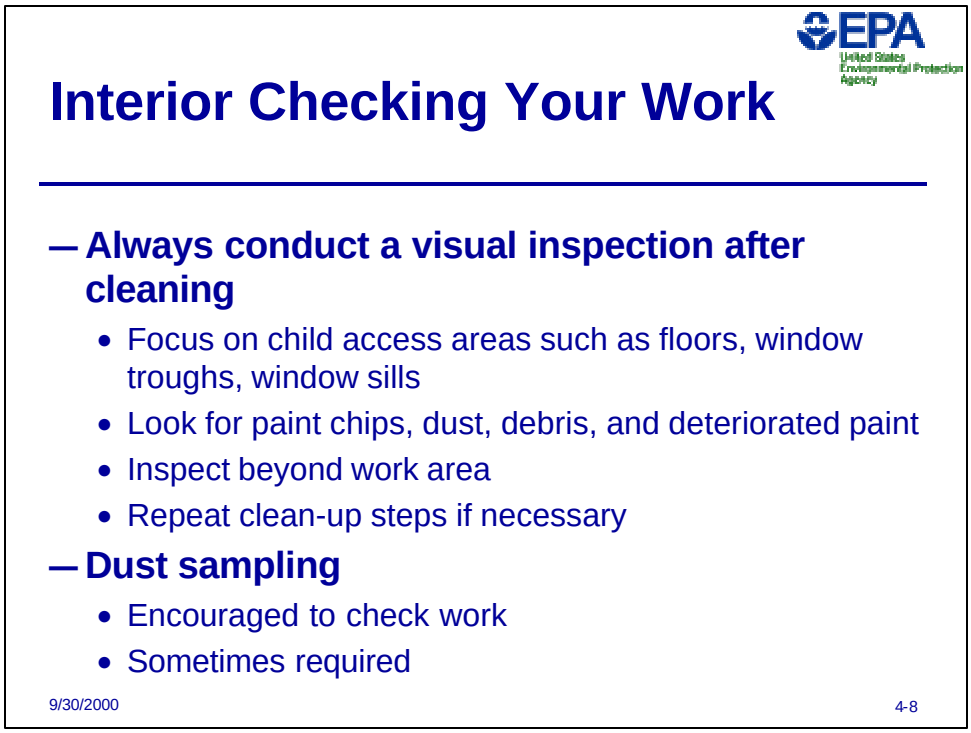
- After passing visual clearance you can perform dust sampling to check your work. In some instances dust sampling may be required.

- Discuss instances where dust sampling may be required or requested such as:

    - In some states, dust wipe sampling by a certified or trained person may be required by law. Supervisors should be aware of laws regarding dust wipe sampling and renovation and remodeling work.

    - In some instances the owner may request dust wipe samples be taken to locate lead hazards and ensure cleaning has been effective. If you follow the techniques outlined in this section you should pass any dust wipe analysis.

- **Emphasize that clean up should always be performed as if a dust wipe analysis were going to be conducted after clean-up.**



Visual inspection

- A thorough visual inspection should be the first step of checking your clean-up. Any visible paint chips, dust or debris should be collected and disposed.
- **Visual inspection will not verify that a work area has been cleaned adequately**. In many instances lead dust is not visible to the naked eye and will be not be detected during a visual inspection. To ensure that a work area is properly cleaned, follow the practices outlined in this section and take a dust wipe sample for verification.

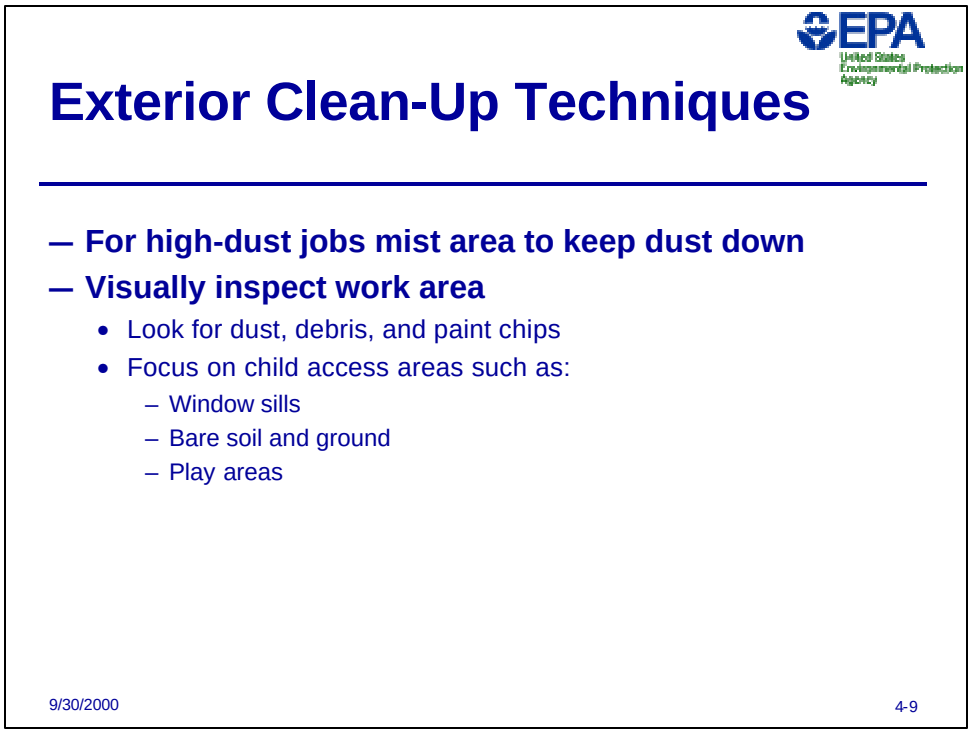
Dust sampling

- Dust sampling can be performed to check the effectiveness of the clean-up efforts.
- In some cases, dust sampling may be required as part of "clearance" (a defined process to ensure that a work area is not contaminated with lead dust after work is completed). In such cases, dust sampling must be performed by a certified or trained person. Supervisors should be aware of state laws regarding renovation and remodeling work.

Slide 4-9: Exterior Clean-up Techniques

- The main point of cleaning after an exterior job is not to let dust spread beyond the work area and to focus specifically on the areas that children could have access to such as bare soil, play areas, exterior porches and exterior window sills.

- Always inspect beyond the work area. Collect and dispose of all paint chips, dust and debris.



High-dust jobs

- After completing a high-dust job, such as power sanding a painted surface, mist the entire work area to keep dust from spreading.

Visual inspection

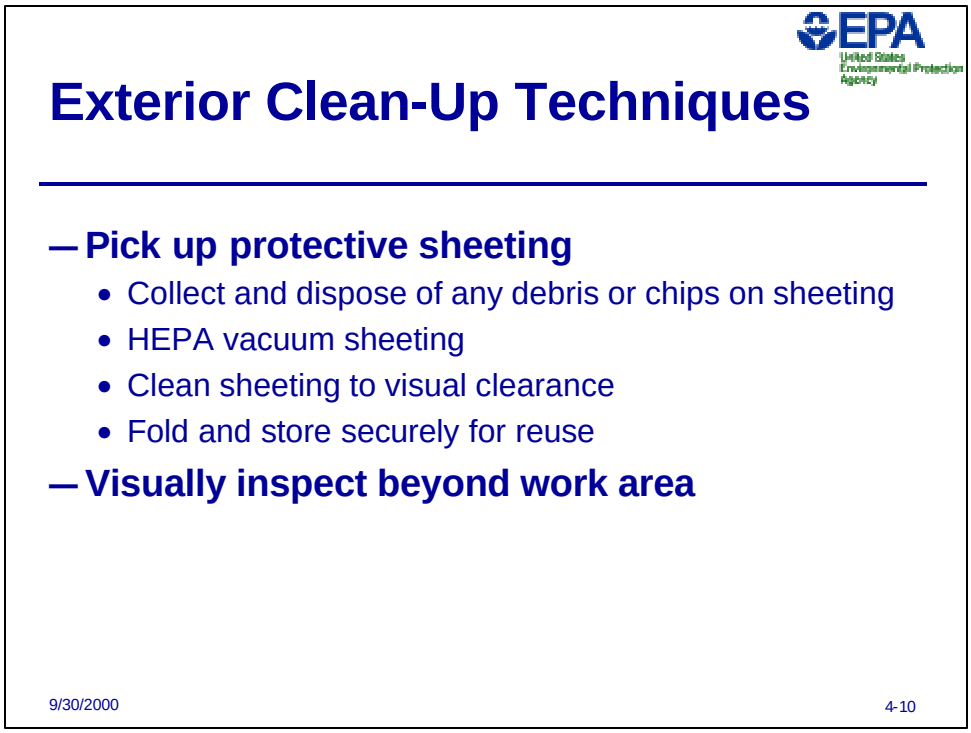
- A thorough visual inspection of the work area should be conducted after any exterior job. Any visible paint chips, wood chips or other debris from the work area should be collected and disposed with the rest of your waste.
- Focus your visual inspection on areas where children may play or be exposed to lead contaminated dust or debris. Such areas include exterior porches, outside play areas, bare soil and ground, and window sills.

Remember

- Lead contaminated soil can poison children.
- Avoid dry raking and spreading dust.

Slide 4-10: Exterior Clean-up Techniques

- Plastic protective sheeting can kill plants and other vegetation if used for an extended period of time. Therefore, on many exterior jobs landscape fabric, screen tarp, or screen mesh is used. **This material must be fine enough to catch any debris or paint chips.** Although it is recommended to be disposed of after each use, because this material can be more expensive per square foot than plastic sheeting, many contractors reuse the material. **In the case of reuse, the material must be cleaned thoroughly and pass visual clearance before being folded and stored securely.** One method is to HEPA vacuum the material after the job is completed. Washing the fabric may also prove effective; however, waste water and debris may be produced using this method. The most effective way to clean exterior protective sheeting will be a slow HEPA vacuum followed, if necessary, by a wet clean and rinse.



Protective sheeting

- Use of screen mesh, screen tarp, or landscape fabric is recommended to cover vegetation. This material should be fine enough to collect all chips and debris. Although recommended to be disposed of after use, if you intend to reuse the protective sheeting it **must** be cleaned thoroughly and pass visual clearance before being securely stored for reuse.
- If protective sheeting will be disposed at the end of the job, it should be cleaned and disposed with the rest of your waste.

Specific exterior jobs

- If work takes place on an exterior porch or stairwell, HEPA vacuuming, wet cleaning and mopping, in addition to a thorough visual inspection, should be used to clean the work area. For such jobs the clean-up can be similar to clean-up after interior jobs. Collect and dispose of any dust or debris with the rest of your waste.

Slide 4-11: Exterior Checking Your Work

- Discuss why another visual inspection for checking your work is necessary.

- Discussion: A visual inspection should always occur before cleaning and focus on collecting all visible debris, large components, and paint ships. This should be followed by your cleaning activities which in the case of exterior work consists mainly of visual clearance and inspection. However, after any cleanup activity another visual inspection is always necessary and should include areas not covered by the protective sheeting, areas outside the containment area, and all areas in the work area.

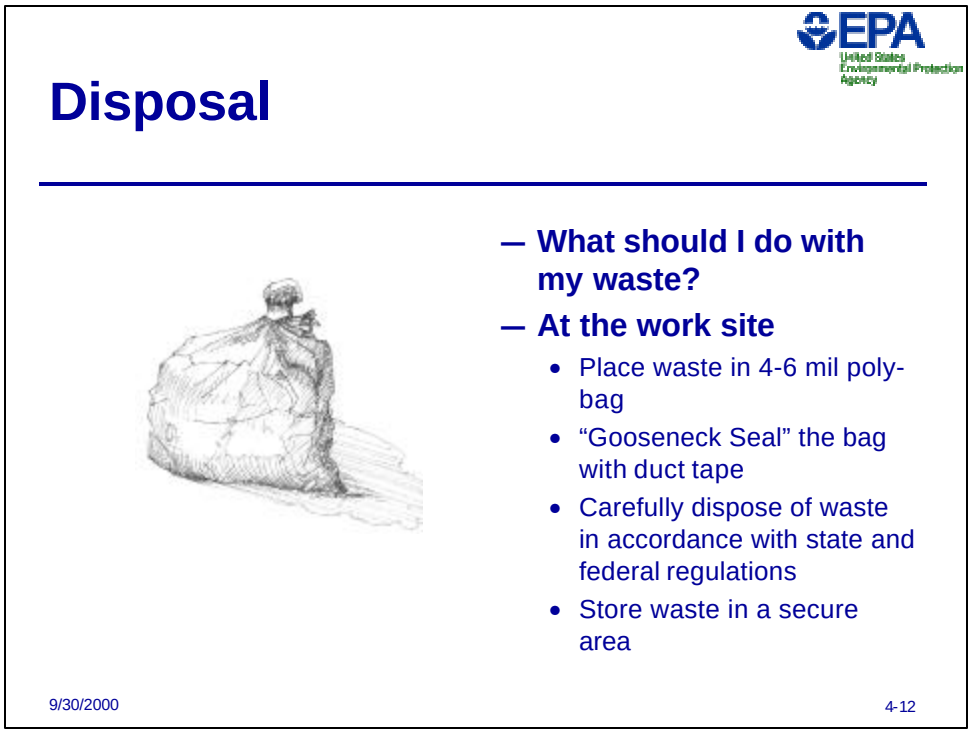
- Emphasize that contractors should focus on child access areas such as bare soil or ground, exterior porches, and exterior window sills.

Checking your work

- A thorough visual inspection is the main part of checking your clean-up after an exterior job. You should collect and dispose of any visible paint chips, wood chips and debris found during the visual inspection. Child access areas include porches, play areas, bare soil or ground, and window sills.
- You may notice that the processes of clean-up and checking your work are similar for exterior jobs. A visual inspection is conducted once while cleaning and **again** after completing clean-up to check your work. Both visual inspections should be thorough and focus on collecting and disposing all visible paint chips, dust and debris.

Slide 4-12: Disposal

- Demonstrate “gooseneck” seal of disposal bags.
- Waste should be stored in a secure area to prevent children from getting into it and being exposed to lead dust.
- Discuss methods to handle waste water.
- Waste water produced during the job from mopping, wet cleaning or misting should not be poured down the sink, in the yard, down a storm drain or in a tub.
- Waste water should be poured down the toilet if local regulations allow for such disposal. Before disposal, waste water should be filtered.
- Always be aware of federal, state and local regulations regarding waste water disposal.
- All waste should be handled carefully and sealed in 4-6 mil poly bags.
- Supervisors must be aware of the components of the waste produced at the job site and the proper method of disposal. Again, always be aware of federal, state and local waste disposal regulations.



At the work site

- Always collect, bag and seal your waste at the work site and in the work area. Do not carry your waste to another room or another area before bagging and sealing the waste. Store all waste in a secure container or dumpster until disposal. Limit on-site storage time. Avoid transporting waste in an open truck. Some examples of waste include:
  - Protective sheeting
  - HEPA filters
  - All paint chips, dust and dirty water
  - Used cloths, wipes and mop heads
  - Any debris
  - Protective clothing, respirators, gloves
  - Architectural components

Waste water

- Water used for clean-up should be filtered and dumped in a toilet. Never dump this water down a sink, storm drain, on the ground, or in a tub. **Always be aware of state and local regulations regarding waste water disposal.**

Remember

- If needed, "double-bag" your waste to help prevent the waste from escaping if the bag is cut or ripped.

Slide 4-13: Disposal - Local and Federal Information

- Waste disposal is regulated under the Resource Conservation and Recovery Act (RCRA) and various associated state laws and regulations.

- Some waste generated from lead work may meet the definition of "hazardous waste" because it is toxic, corrosive, ignitable, or explosive. Therefore, it is important for contractors to segregate waste into categories that are likely to be hazardous and non-hazardous. Examples of hazardous waste may include: paint chips, vacuum debris, sludge or chemical waste from stripper and HEPA filters.

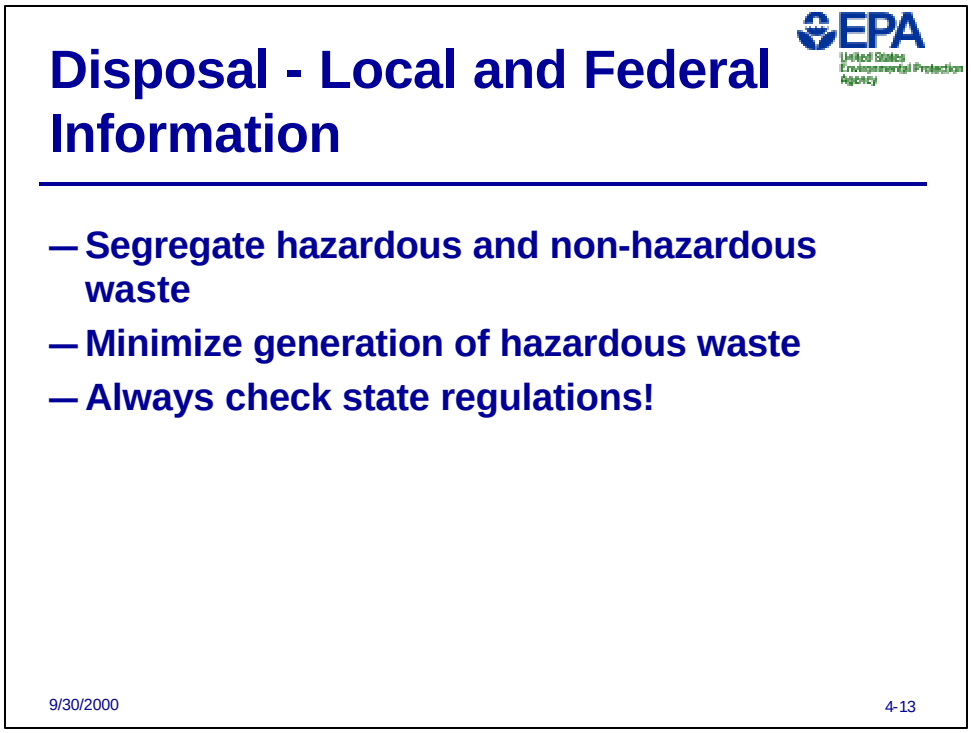
- Generators of less than 220 pounds of waste per job site per month are exempt from Federal waste disposal regulations and most state regulations.

- Many states have more stringent regulations than federal requirements. It is, therefore, important for contractors to understand their obligations under these laws and regulations.

- You should always be aware of how much waste you are generating per job site per month.

- EPA's website has a list of telephone numbers for state information on solid and hazardous waste disposal at http://www.epa.gov/epaoswer/hotline/states.txt

- In a memorandum to RCRA Senior Policy Advisors and EPA Regions 1-10, dated July 31, 2000, EPA's Office of Solid Waste stated that lead-based paint waste from households may be disposed of as household garbage subject to applicable state regulations. However, although EPA considers lead-based paint waste commonly generated during renovation, remodeling, and painting to be household waste, most states have not yet adopted this interpretation. Until states do adopt EPA's interpretation, they may continue to regulate lead-based paint waste as potentially hazardous if generated in large enough quantities as indicated on the slide. (U.S. EPA "Regulatory Status of Work Generated by Contractors and Residents from Lead-based Paint Activities Conducted in Households" Memorandum from Elizabeth A. Cotsworth, Director, Office of Solid Waste, to RCRA Senior Policy Advisors and EPA Regions 1-10. July 31, 2000)



Waste disposal issues

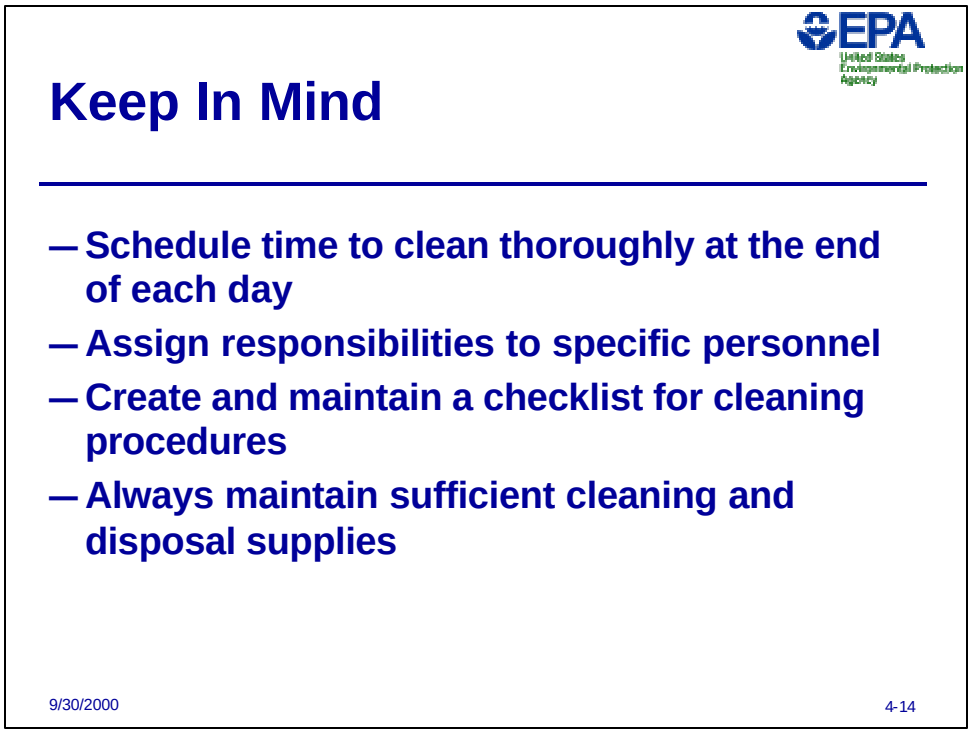
- Because the U.S. EPA considers most renovation and remodeling as “routine residential maintenance” the waste generated during these activities is classified as solid, non-hazardous waste and should be taken to a licensed solid waste landfill.
- You should determine whether you generate more than 220 pounds of hazardous waste per job site per month. If you have less than 220 pounds per location per month then manage this waste as solid, non-hazardous waste. If you generate more than 220 pounds of hazardous waste you should contact your state and local regulators to find out how to dispose of this waste properly.
- Some **possible** examples of **hazardous waste** may include: paint chips; vacuum debris; sludge or chemical waste from strippers; and HEPA filters.
- Some **possible** examples of **non-hazardous waste** may include: disposable clothing; respirator filters; rugs and carpets; protective sheeting; and solid components with no peeling paint. Please list and suggest any other examples.
- All waste should be handled carefully and sealed in heavy duty (6 mil) poly-bags.
- Large architectural components should be wrapped and sealed in plastic sheeting and disposed along with your waste.

Remember

- Some states have enacted more stringent waste management and disposal regulations.
- Supervisors must be aware of state regulations concerning hazardous and solid waste management and disposal.

Slide 4-14: Keep in Mind

- The items listed on the slide are important for planning and managing work efficiently.
- Remember, you should either clean the work site thoroughly at the end of each day or completely seal off the area and not allow re-occupation.
- Note the checklist for cleaning procedures in the student notes below the slide. **Ask participants whether they would add or change anything in the checklist.**



Example check list for cleaning procedures

The list below is an example checklist for cleaning procedures. You may wish to add to or modify it to fit your needs.

- Was the work completed?
- Have all visible paint chips, dust and debris been removed and disposed?
- Was the protective sheeting folded, sealed, and disposed?
- Was the interior work area HEPA vacuumed?
- Were all surfaces wet cleaned? Was the floor cleaned last?
- Was the interior work area HEPA vacuumed again?
- Was all waste placed safely in 4-6 mil poly-bags?
- Were all bags properly sealed?
- Was all waste disposed in accordance with state and federal regulations?
- Was a visual inspection completed?
- Were dust samples taken?
- Is the property owner satisfied?